REMARKS

The Office Action dated July 27, 2007 has been received and considered. In this response, claims 1, 7, 11, 12, 18, 26, 32, 35, and 38 have been amended to address various informalities. The amendments to the claims do not narrow the scope of the claims and support for the amendments may be found in the specification and drawings as originally filed. Reconsideration of the outstanding rejections in the present application is respectfully requested based on the following remarks.

Objections to Claims

At pages 3-4 of the Office Action, claims 1, 18, 26, 32, 35, and 38 are objected to because of various informalities. These claims have been amended to address the objections. Accordingly, withdrawal of the objections and reconsideration of the claims is respectfully requested.

Indefinite Rejection of Claims 1-46

At page 5 of the Office Action, claims 1-46 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This rejection is hereby respectfully traversed.

Although the Applicant disagrees with the Section 112 rejection of claims 7, 11, and 12, the claims have been amended to address the issues raised on page 5 of the Office Action.

With respect to claims 1, 7, and 18, and the claims respectively dependent thereon, the Office Action asserts at page 5 that the elements "appliance operating system dedicated to control the information handling device to operate a subset of the one or more appliances" are indefinite because the appliance operating system is used for multiple functions, and therefore "it is not apparent how the appliance operating system is dedicated." *Office Action*, page 5. Applicant respectfully submits that one skilled in the art would understand that the term "dedicated" does not mean "used for a single function. Instead, one skilled in the art would understand that the term "dedicated" contrasts with the term "general" as set forth in claims 1, 7, and 18. That is, one skilled in the art would understand that the term "dedicated" refers to an

appliance operating system that controls only a subset of appliances available to an information handling device, and contrasts with the term "general", which refers to an operating system that can control all of the components of the information handling device. Accordingly, Applicant respectfully submits that the features of claims 1, 7, and 18 and the claims dependent thereon are not indefinite.

At pages 5-6 of the Office Action, the Office asserts that the term "general operating system" of claims 1, 7, and 18 is indefinite because the Specification of the present application "clearly states 'while a general operating system would be limited to controlling the built in CD player.'" *Office Action*, page 5 (citing the *Specification*, page 7, lines 13-14). Further, at page 6 the Office asserts that the term "general information handling tasks" as used in claims 1 and 7 is indefinite for similar reasons. However, Applicant respectfully points out that the passage cited by the Office reads <u>in full</u> as follows "In one embodiment, entertainment operating system 172 can control either the built in CD player, or the second CD player that is part of home theater 187, while a general operating system would be limited to controlling the built in CD player." *Specification*, page 7, lines 11-14. Thus, in light of the Specification, one skilled in the art would understand that a general operating system is a system that controls all the components of an information handling system, but in some embodiments may not control peripheral appliances that can be controlled by a dedicated appliance operating system. Accordingly, the terms "general operating system" and "general information handling tasks" are not indefinite.

At page 6 of the Office Action, the Office asserts that the elements "executing ...operating systems concurrently" are indefinite because "it is not apparent how the general operating system can perform general information tasks when the other appliance operating system is executing." *Office Action*, page 6. The Office Action acknowledges at page 7 that there are a variety of techniques that support concurrently executing operating systems, but asserts that claim 4 is indefinite because the specification does not indicate "how the general operating system can perform general information tasks...when the execution of the general operating system is discontinued." *Id.*, page 7. However, Applicant respectfully points out that there is no element in claim 4 that recites execution of an operating system is discontinued. Instead, those features are present in **claim 3** (not claim 2 as indicated in the Office Action), and claim 4 does not depend from claim 3. Accordingly, claim 4 is not indefinite.

Double Patenting Rejection of Claims 1-46

At page 7 of the Office Action claims 1-46 are provisionally rejected on the ground of non-statutory double patenting over claims 1-64 of copending Application Number 10/869,165. Applicant traverses the rejection, and in light of the fact that the rejection is provisional, Applicant declines to file a terminal disclaimer at this time. Applicant will revisit the filing of a terminal disclaimer when the scope of the claims of the copending application is finalized.

Obviousness Rejection of Claims 1-4, 6, 11-14, 16-27 and 41-43

At page 8 of the Office Action, claims 1-4, 6, 11-14, 16-27 and 41-43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Solomon (U.S. Patent No. 6,269,409) in view of Watanabe et al. (U.S. Patent No.6,763,458). This rejection is hereby respectfully traversed.

The obviousness rejection relies on the combination of Solomon and Watanabe. However, Applicant respectfully submits that one skilled in the art would not make this combination because such combination would render Solomon unsuitable for its intended purpose. "If [a] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." *MPEP*, § 2143.01 (citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)).

> According to Solomon:
>
> The present invention provides an improved method and apparatus for **concurrent execution of operating systems**. A software abstraction layer provides an interface that allows a **first operating system to run concurrently with a second operating system** on the same data processing system, in which the first operating system is in communication with the base machine in the data processing system. **Interaction between the second operating system and the base machine is handled by the software abstraction layer translating requests and calls from a format normally made by the second operating system to the base machine into a format that is processed by the first operating system**.

Solomon, col. 2, lines 14-25 (emphasis added). Thus, the intended purpose of Solomon is to provide a method and apparatus to allow two operating systems to run concurrently, with one

operating system providing an interface between a base machine and the second operating system. *Id.*

In contrast to Solomon, the system of Watanabe executes only a single operating system at a time. According to Watanabe

The invention provides apparatus, system, computer program, and method that provide multiple operating system support and a fast startup capability in a computer or information appliance device. More particularly it permits a user to **select and execute one of a plurality of alternative operating systems** available on the device at the time of powering on the device and where data generated by an application program executing within one of the plurality of operating systems is available to a different application program executing within a different operating system on the same device.

Watanabe, col. 8, lines 1- 13 (emphasis added); see also col. 25, lines 22-28 ("FIG. 6A shows a first exemplary switching device 320 for generating boot control bit values 321 at an input/output port 322 that can be read by a processor 323 within a computer or information appliance 324 during its boot operation and thereby control *which of a plurality of available operating systems is booted by the computer.*" (emphasis added)); col. 25, lines 48-53 ("FIG. 7 is a diagrammatic illustration showing an even more general device or logic element 336 that generates a binary boot indicator flag (or flags) 337 as a boot control indicator that can be read by a processor 323 within a computer or information appliance during its boot operation and thereby control *which of two (or more) operating systems* is booted." (emphasis added)).

Thus, if the system of Watanabe, which selects and executes *only one* of a plurality of operating systems at a time, were combined with the system of Solomon it would render Solomon unsatisfactory for its intended purpose of providing a scheme to allow a computer to run multiple operating systems *concurrently*. Concurrent running of operating systems, as taught by Solomon, is diametrically opposed to executing only one operating system at a time as taught by Watanabe. Accordingly, one of ordinary skill in the art would not combine Solomon and Watanabe as each reference teaches away from the essential feature of the other.

Further, in order to combine references for an obviousness rejection, there must be a reasonable expectation of success which is found in the prior art, not in an applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). There is no reasonable

expectation that a combination of Solomon and Watanabe would be a success, because Solomon teaches concurrent execution of operating systems, and Watanabe teaches execution of a single operating system at a time. Accordingly, Solomon and Watanabe cannot be combined for purposes of an obviousness rejection.

In view of the foregoing, Applicant respectfully submits that the obviousness rejection of claims 1-4, 6, 11-14, 16-27 and 41-43 is improper. Withdrawal of the rejection and reconsideration of the claims is respectfully requested.

Obviousness Rejection of Claims 5, 7-10, 15, 28-40 and 44-46

At page 11 of the Office Action, claims 5, 7-10, 15, 28-40 and 44-46 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Solomon and Watanabe in view of "Official Notice". This rejection is hereby respectfully traversed. As explained above, one skilled in the art would not combine Solomon and Watanabe, and therefore their combination cannot form the basis of an obviousness rejection. In addition, Applicant respectfully traverses the Office's assertion that features of claims 5, 7-10, 15, 28-40 and 44-46 are well known and expected in the art.

In view of the foregoing, Applicant respectfully submits that the obviousness rejection of claims 5, 7-10, 15, 28-40 and 44-46 is improper. Withdrawal of the rejection and reconsideration of the claims is respectfully requested.

Obviousness Rejection of Claims 1-4, 6, 11-14, 16-28 and 41-43

At page 16 of the Office Action, claims 1-4, 6, 11-14, 16-28 and 41-43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Endo et al. (U.S. Patent No. 6,615,303) in view of Watanabe et al. This rejection is hereby respectfully traversed.

As explained in Applicant's Response to Office Action filed November 17, 2006, one skilled in the art would not combine Endo and Watanabe, because doing so would render Endo unsuitable for its intended purpose. According to Endo

> An object of the present invention to provide a scheme to making the input and
> output device provided in a computer in common for a plurality of operating

system, in a multiple operating system control unit **operating a plurality of mutually distinct operating systems on one computer system**.

In order to accomplish the above mentioned object, According [sic] to the first invention, a computer system including a plurality of operating systems, and an OS switching means for switching a plurality of operating systems, characterized in that said OS switching means makes reference to a preferential interrupt table on the basis of an interrupt factor for switching to corresponding operating system and calls interrupt processing means incorporated in said operating system for making the input and output device provided in the computer system in common for a plurality of operating systems.

Endo, col. 2, line 65 – col. 3, line 13 (emphasis added). Thus, the intended purpose of Endo is to provide a scheme to allow input and output devices to be operated by a computer that is running multiple operating systems concurrently. *See Id.*, col. 5, lines 33 –38 ("In the shown embodiment, discussion will be given for the case where two operating systems 116 and 117 are present in the computer system. The operating systems 116 and 117 execute tasks 110 to 115 using memory assigned for each operating system and a resource of the processor"). As explained above, Watanabe selects and executes *only one* of a plurality of operating systems at a time. Thus, if the system of Watanabe, were combined with the system of Endo it would render Endo unsatisfactory for its intended purpose of providing a scheme to allow input and output devices to be operated by a computer that is running multiple operating systems *concurrently*. Accordingly, one skilled in the art would not combine the references, and their combination cannot support an obviousness rejection.

In view of the foregoing, Applicant respectfully submits that the obviousness rejection of claims 1-4, 6, 11-14, 16-28 and 41-43 is improper. Withdrawal of the rejection and reconsideration of the claims is respectfully requested.

Obviousness Rejection of Claims 5, 7-10, 15, 29-40 and 44-46

At page 20 of the Office Action, claims 5, 7-10, 15, 29-40 and 44-46 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Endo et al. and Watanabe et al. in view of "Official Notice". This rejection is hereby respectfully traversed. As explained above, there is no motivation to combine Endo and Watanabe, and therefore their combination cannot form the basis of an obviousness rejection. In addition, Applicant respectfully traverses the Office's

assertion that features of claims 5, 7-10, 15, 29-40 and 44-46 are well known and expected in the art.

In view of the foregoing, Applicant respectfully submits that the obviousness rejection of claims 5, 7-10, 15, 29-40 and 44-46 is improper. Withdrawal of the rejection and reconsideration of the claims is respectfully requested.

Obviousness Rejection of Claims 1-4, 6, 11-28 and 41-43

At page 25 of the Office Action, claims 1-4, 6, 11-28 and 41-43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Endo et al. in view of Ginter et al. (U.S. Patent No. 6,363,488). This rejection is hereby respectfully traversed.

As explained in Applicant's Response to Office Action filed November 17, 2006, one skilled in the art would not combine Endo and Ginter, because doing so would render Endo unsuitable for its intended purpose. As explained, the intended purpose of Endo is "to provide a scheme to making the input and output device provided in a computer in common for a plurality of operating system, in a multiple operating system control unit *operating a plurality of mutually distinct operating systems on one computer system.*" *Endo*, col. 2, line 65 – col. 3, line 2 (emphasis added).

However, Ginter discloses a virtual distribution environment (VDE) to enforce a secure chain of handling among distributed electronic devices. *Ginter*, Abstract. As part of the VDE, Ginter discloses a Rights Operating System (ROS) that includes "operating system layers for desktops (e.g., DOS, Windows, Macintosh); device drivers and operating system interfaces for network services (e.g., Unix and Netware); and dedicated component drivers for 'low end' set tops." *Id.*, col. 73, lines 62-66. Thus, the Ginter system clearly discloses using multiple operating systems on **multiple systems**, such as multiple desktop computer systems. Accordingly, combining Ginter with Endo would render Endo unsuitable for its intended purpose of providing a scheme to allow input and output devices to be operated by a *single computer system* that is running multiple operating systems concurrently. Accordingly, one skilled in the art would not combine Ginter and Endo.

In view of the foregoing, Applicant respectfully submits that the obviousness rejection of claims 1-4, 6, 11-28 and 41-43 is improper. Withdrawal of the rejection and reconsideration of the claims is respectfully requested.

Obviousness Rejection of Claims 5, 7-10, 29-40 and 44-46

At page 29 of the Office Action, claims 5, 7-10, 29-40 and 44-46 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Endo et al. and Ginter et al. in view of "Official Notice". This rejection is hereby respectfully traversed. As explained above, there is no motivation to combine Endo and Ginter, and therefore their combination cannot form the basis of an obviousness rejection. In addition, Applicant respectfully traverses the Office's assertion that features of claims 5, 7-10, 15, 29-40 and 44-46 are well known and expected in the art.

In view of the foregoing, Applicant respectfully submits that the obviousness rejection of claims 5, 7-10, 29-40 and 44-46 is improper. Withdrawal of the rejection and reconsideration of the claims is respectfully requested.

Obviousness Rejection of Claims 1-4, 6, 11-14, 16-27 and 41-43

At page 34 of the Office Action, claims 1-4, 6, 11-14, 16-27 and 41-43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee et al. (U.S. Patent No. 6,823,458) in view of Watanabe et al. This rejection is hereby respectfully traversed.

One skilled in the art would not combine Lee and Watanabe, because doing so would render Lee unsuitable for its intended purpose. In particular, Lee discloses an apparatus and method for securing system resources "in a **concurrent** multiple operating system environment." *Lee*, Abstract. According to Lee:

> The present invention provides an apparatus and method for monitoring and securing resources shared by multiple operating systems in a **concurrent multiple operating system environment**. Thus, with the present invention, the risk of altering data that is needed by other applications running under other operating systems concurrently is minimized.

Id., col. 3, lines 20-25 (emphasis added). As explained above, Watanabe selects and executes *only one* of a plurality of operating systems at a time. Thus, if the system of Watanabe, were

combined with the system of Lee it would render Lee unsatisfactory for its intended purpose of providing a scheme to share resources when multiple operating systems are running *concurrently*. Accordingly, one skilled in the art would not combine the references, and their combination cannot support an obviousness rejection.

In view of the foregoing, Applicant respectfully submits that the obviousness rejection of claims 1-4, 6, 11-14, 16-27 and 41-43 is improper. Withdrawal of the rejection and reconsideration of the claims is respectfully requested

Obviousness Rejection of Claims 5, 7-10, 15, 28-40 and 44-46

At page 37 of the Office Action, claims 5, 7-10, 15, 28-40 and 44-46 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee and Watanabe in view of "Official Notice". This rejection is hereby respectfully traversed. As explained above, there is no motivation to combine Lee and Watanabe, and therefore their combination cannot form the basis of an obviousness rejection. In addition, Applicant respectfully traverses the Office's assertion that features of claims 5, 7-10, 15, 28-40 and 44-46 are well known and expected in the art.

In view of the foregoing, Applicant respectfully submits that the obviousness rejection of claims 5, 7-10, 28-40 and 44-46 is improper. Withdrawal of the rejection and reconsideration of the claims is respectfully requested.

Conclusion

The Applicant respectfully submits that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

The Applicant believes no additional fees are due, but if the Commissioner believes additional fees are due, the Commissioner is hereby authorized to charge any fees, which may be required, or credit any overpayment, to Deposit Account Number 50-0441.

Respectfully submitted,

/Adam D. Sheehan/   October 24, 2007
Adam D. Sheehan; Reg. No. 42,146   Date
LARSON NEWMAN ABEL POLANSKY & WHITE, LLP
5914 West Courtyard Drive, Suite 200
Austin, Texas 78730
(512) 439-7100 (phone)
(512) 439-7199 (fax)